



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,255	12/04/2003	Arne Reinheimer	DT-6700	7784
30377	7590	08/10/2007	EXAMINER	
DAVID TOREN, ESQ.			LANGEL, WAYNE A	
ABELMAN FRAYNE & SCHWAB			ART UNIT	PAPER NUMBER
666 THIRD AVENUE			1754	
NEW YORK, NY 10017-5621				
MAIL DATE		DELIVERY MODE		
08/10/2007		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/728,255	REINHEIMER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 11 June 2007.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 2-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 2-13 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 28 June 2007 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo et al or Yamada et al or Greinke et al '450 or Mercuri or British 2,128,971 or JP 2-153811. No distinction is seen between the method and composition disclosed by Kondo et al, Yamada et al, Greinke et al '450, Mercuri, British 2,128,971 and JP 2-153811, and that recited in applicants' claims. Kondo et al, Yamada et al, Greinke et al '450, Mercuri, British 2,128,971 and JP 2-153811 all disclose the step of washing sulfuric acid-graphite particles with an aqueous washing liquid containing compounds which would affect the expansion properties. For example, Kondo et al disclose washing with a metal salt of a boric acid ester of a saccharide (see the Abstract); Yamada et al disclose washing with an aqueous solution of phosphoric acid (see the paragraph bridging columns 2 and 3); Greinke et al '450 disclose contacting with an organic molecule having C -C carbon atoms and a polar end functional group (see the Abstract); Mercuri discloses washing with a carboxylic acid immediately after intercalation (see Paragraphs [0030] and [0031]; British 2,128,971 discloses washing with an aqueous solution of nitric acid (see the Abstract, page 1, lines 69-74 and page 2, lines 16-24); and JP 2-153811 discloses washing with sodium compounds which may be sodium salts of organic acids (see the English Abstract and the claims). Applicants'

arguments are not convincing, since applicants have not explained how the product recited in claim 11 would differ from the prior art references.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-10, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al or British 2,128,971 or JP 2-153811. Yamada et al, British 2,128,971 and JP 2-153811 all disclose the step of washing sulfuric acid-graphite particles with an aqueous washing liquid containing compounds which would affect the expansion properties. For example, Yamada et al disclose washing with an aqueous solution of phosphoric acid (see the paragraph bridging columns 2 and 3); British 2,128,971 discloses washing with an aqueous solution of nitric acid or nitrate (see the Abstract, page 1, lines 69-74 and page 2, lines 16-24); and JP 2-153811 discloses washing with sodium compounds which may be sodium salts of organic acids (see the English Abstract and the claims). Applicants' argument, that applicants' claims require a washing liquid containing the specific compounds, is not convincing, since Yamada et al disclose closely related compounds at col. 2, lines 56-65, British 2,128,971 discloses nitrates as being present in the washing liquid, and JP 2-153811 suggests that any aqueous alkali metal compound may be used in the washing liquid.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is indefinite as to whether the aqueous washing liquid contains the compounds affecting the expansion properties, since there is a comma (,) after "liquid".

The specification is objected to under 37 CFR 1.74 in failing to include a "Brief Description of Drawings". See MPEP 608.01 (f).

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

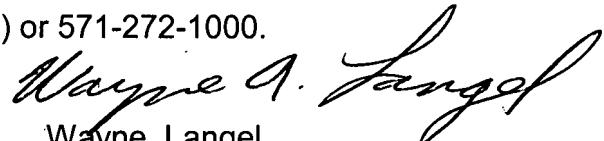
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne Langel whose telephone number is 571-272-1353. The examiner can normally be reached on Monday through Friday, 8 am - 3:30 pm Eastern Time.

Art Unit: 1754

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Wayne A. Langel  
Primary Examiner  
Art Unit 1754